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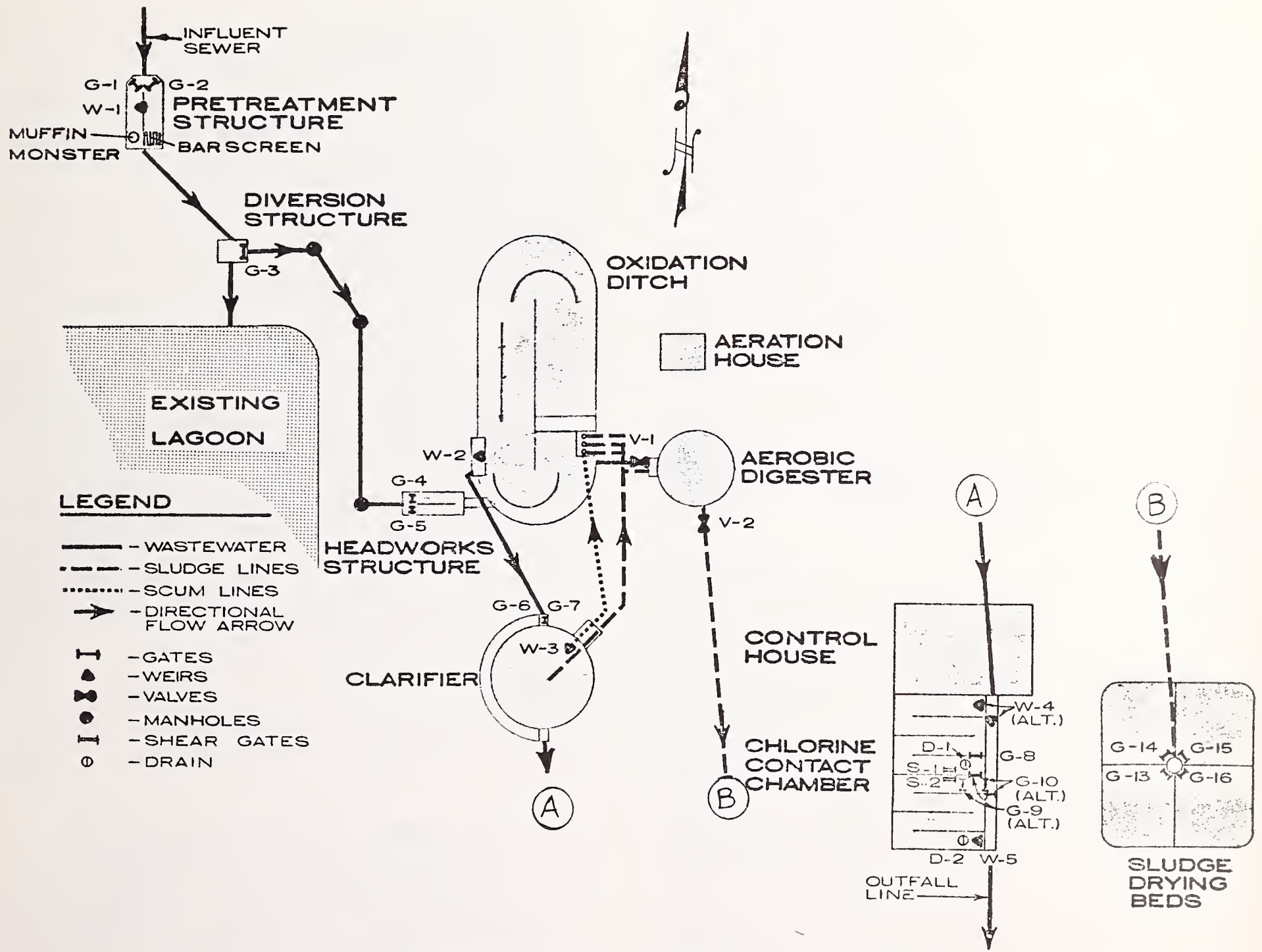
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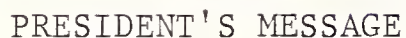
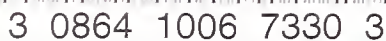
March, 1978

No.1



SCHEMATIC DIAGRAM OF POPLARS NEW OXIDATION DITCH

COVER STORY - PAGE 13



PRESIDENT'S MESSAGE

See you in Great Falls and, while you are at it, bring along a new member.

Alf Hulteng, President
Montana WPCA

MONTANA WPCA OFFICERS

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Alf Hulteng
Public Health Engineer
Water Quality Bureau
Billings, Montana

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Metro Wastewater Treatment Plant
Butte, Montana

Vice-President

Robert Haverfield
Superintendent
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Great Falls, Montana

IMPORTANT MEETINGS

53rd Joint Conference - Montana Section
AWWA, Montana WPCA - April 6-7, 1978
Heritage Inn, Great Falls, Montana

AWWA 98th Annual Conference
June 25-30, 1978 - Atlantic City, N.J.

WPCF 51st Annual Conference/Exhibition
October 1-6, 1978 - Anaheim Convention
Center, Anaheim, California

**COMMITTEES ARE THE
BACKBONE OF YOUR
ORGANIZATIONS — KEEP
THEM ACTIVE.**



CHAIRMAN'S MESSAGE

Nineteen hundred seventy-four was the year I became the MSAWWA junior trustee. As I think back over the years of being part of this great association, it makes me understand and realize the importance and good that AWWA does - EMGM.

In May the National Conference was held in Anaheim, California with almost 7,000 in attendance. I am grateful for having the opportunity of being one of those 7,000. It was a rewarding and educational experience. Southern California was rainy that week; but a welcome change, for them, from the drought. An appropriate time for AWWA to be meeting there. Where you could read, hear, and feel the importance of water conservation - EMGM.

With the resignation of John Voelker, in August, as our membership chairman, Mike Patterson of Butte was appointed chairman. He attended a National membership meeting in Minneapolis in September and is off to an enthusiastic start and is doing a good job. Let us all help by signing up a new member and do our part to help the five-year membership drive reach its national goal of 40,000 members by 1981 - EMGM.

I would like to encourage all committee chairmen to start preparing their reports to be given at our annual meeting this year, April 6th and 7th in Great Falls - EMGM.

Nineteen hundred seventy-seven has been a learning experience and also a busy year for me. It has been an honor serving as your chairman. I am looking forward to seeing all of you in Great Falls - EMGM.

EMGM - Every Member Get a Member!

Mike Thomas
Chairman, Montana Section
American Water Works Association

MONTANA SECTION AWWA OFFICERS

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Assistant Superintendent
Billings Water Department
Billings, Montana

Chairman-Elect

Howard Smith
Superintendent
Water and Wastewater Facilities
Poplar, Montana

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Richard Nisbet
Director of Public Utilities
Helena, Montana

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Water Plant Superintendent
Great Falls, Montana

Ken Beven
Utilities Superintendent
Laurel, Montana

Secretary-Treasurer

Ralph Dunahoo
Missoula, Montana

M. S. A. W. W. A. - M. W. P. C. A. Joint Committee Chairmen - 1977-1978

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Education	Howard Peavey
	Martha Dow
Meeting Place	Don Willems
Program	Alf Hulteng
Safety	Bill Pasco
Colbeigh	Walt Dunn
Host City	LeRoy Lucker
Government Affairs	Art Clarkson
Nominating	Willis Wetstein
	Ralph Compton
Publications	Alf Hulteng
Technical Papers	Don Willems
	Roger Pierce
Emergency Protection	Art Van't Hul
Heroism	Bob Haverfield
Manufacturers and	
Representatives	Don Greenly
Operator Certification	Wayne Young
Resolutions	Wayne Young

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John Ford Official Photographer
Reporters. All Members



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Members and subscribers are indebted to those members and others who have contributed articles, advertising and other material to make this publication possible.

BIG SKY CLEARWATER

Official Bulletin of the MSAWWA — MWPCA Conference
Quarterly Publication Established 1971
Vol. VIII Billings, Montana February, 1978 No. 1



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The objective of the BIG SKY CLEARWATER shall be the publication of organizational news, the knowledge of design, construction, operation and management of water and waste water facilities and the inter-exchange of experience and information relative to the operation of water and wastewater facilities.

Joint Conference MSAWWA-MWPCA
April 6-7, 1978 Great Falls, Montana
P R O G R A M

Wednesday, April 5

PM Golf Tournament

Thursday, April 6

Mike Thomas - Presiding

8:00 AM Registration
9:00 AM Call to Order
Invocation
Welcome
Response - Bill Pasco, President-Elect, MWPCA
Introduction of Guests
9:30 AM Business Meeting - MSAWWA - Mike Thomas; MWPCA - Alf Hulteng

Alf Hulteng - Presiding

11:00 AM Address - Montana Water Pollution Enforcement Policy - James Rasmussen, WQB

11:45 AM Luncheon - Reports by Ken Johnston, MWPCA, National Director

Bill Pasco - Presiding

11:00 AM Address - Sewer Maintenance, Foaming Method - Mr. Fred Horne

Martha Ann Dow - Presiding

1:15 PM Panel - Odor Problems and Controls for WWTP - Duane Madsen, Billings and Larry Baker, Great Falls

2:45 PM Break

Larry Larson - Presiding

1:15 PM Panel - Lift Station Maintenance/Problems/Inspection

Howard Smith - Presiding

3:00 PM Address - Oxidation Ditches in Montana - Gerald Gaston, SSM Engineering

3:45 PM Address - Montana's Progress in 208 Program - Steve Pilcher, Water Quality Bureau

7:00 PM Dinner

Bob Haverfield - Presiding

3:00 PM Panel - Startup of Secondary WWTP - Bill Pasco, Duane Madsen, and Larry Baker

Friday, April 7

Dick Nisbet - Presiding

9:00 AM Address - Montana Drinking Water Regulations - Art Clarkson, WQB
9:45 AM Address - Design of Flocculation Systems - A. Amirtharajah, MSU
10:30 AM Break

Ken Beven - Presiding

10:45 AM Address - Sludge Disposal from Water Treatment Plants - Gary Knudson, Jensen-Heberle

11:30 AM Luncheon - Reports by MSAWWA International Director and AWWA National Officer

Harold Paulson - Presiding

1:15 PM Address - Insurance for Utilities
2:00 PM Address - Design Blunders - Jim Wright, Black and Veatch
2:45 PM Break

Mike Thomas, MSAWWA; Alf Hulteng, MWPCA - Presiding

3:00 PM Final Business Meeting
7:00 PM Banquet - Awards



Martin Lang
President-Elect WPCF

Martin Lang, Administrator of the Department of Parks, Recreation, and Cultural Affairs of New York City, received his B.S. degree in engineering from the City College of New York and an M.S. in Civil Engineering from New York University. He has been a career civil servant of New York City. In the city's water pollution control program, he has successively occupied the positions of Process Control Engineer, Chief of Engineering (Interceptor Section), Chief of the Industrial Wastes Section, Chief of Process Control, Deputy Chief, Chief of Plant Operations, Deputy Director, and Director of the Bureau of Water Pollution. In 1971, Mr. Lang was appointed Commissioner of the Department of Water Resources and in 1974, he became First Deputy Administrator of the Environmental Protection Administration of New York City. In 1975, he was designated Acting Commissioner of the Department of Sanitation, and in January 1976 was appointed to his present position.

A member of several professional societies, Mr. Lang has been the recipient of numerous awards, including the 1969 City of New York Public Service Award for Professional Achievement for "Chemical Control of Water Quality in a Tidal Basin" and the 1972 APWA award as one of the Top Ten Public Works Men-of-the-Year, the 1972 Thomas R. Camp Medal from the Federation and the 1971 "Municipal Engineers of the Year" award by the New York City Municipal Engineers. In 1970 he was President of the New York Water Pollution Control Association and in 1972, he served as a Federation Director-at-Large.

Note: Since the printing of the above, Mr. Lang has resigned the New York City position and has accepted a position as a vice-president of Camp Dresser and McKee.



Chester A. Ring 3rd
Past-President

Mr. Ring is senior vice president--operations for the Elizabethtown Water Company of Elizabeth, New Jersey.

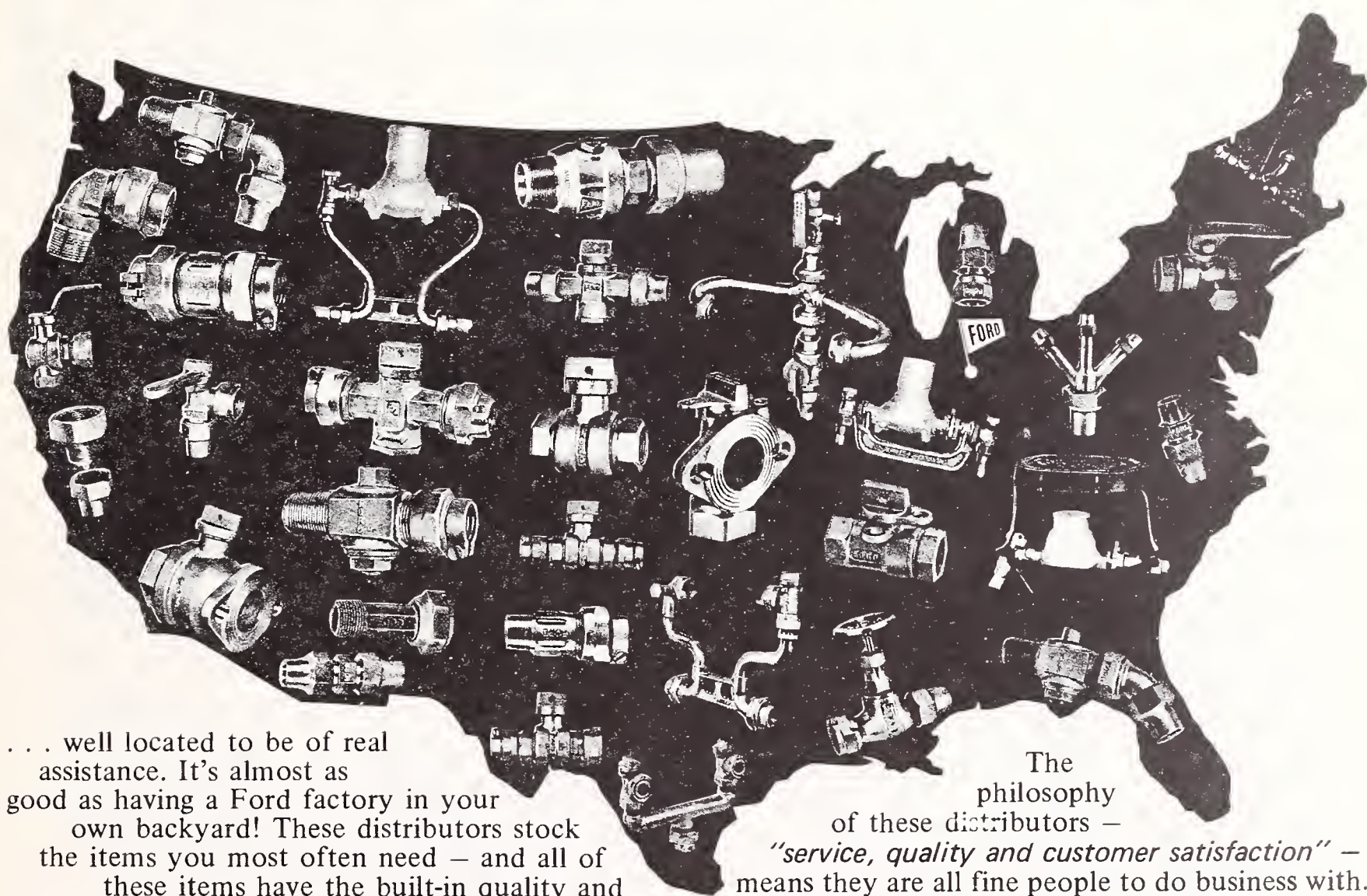
He joined the American Water Works Association in 1957. He has served as trustee, vice chairman and chairman of the New Jersey Section and was named its director in 1970 to complete the term of the previous director. In 1971 he was elected to a full three-year term as New Jersey's director and in 1974 became vice president of AWWA. The section named him its Man of the Year in 1974.

Mr. Ring is a licensed water supply and treatment plant operator in New Jersey and serves on the state licensing board for water supply and treatment plant operators. In 1975 he was appointed to the newly formed National Drinking Water Advisory Council, which was created to advise the administrator of the Environmental Protection Agency relative to the Safe Drinking Water Act of 1974. He's a past director of the National Association of Water Companies and past president of the New Jersey chapter. He is a member of both the New Jersey and National Societies of Professional Engineers and of the American Society of Civil Engineers.

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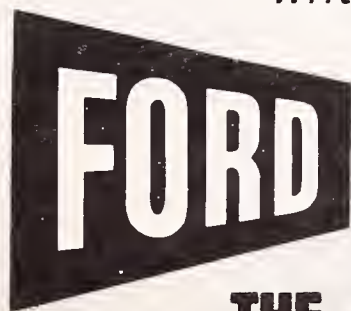
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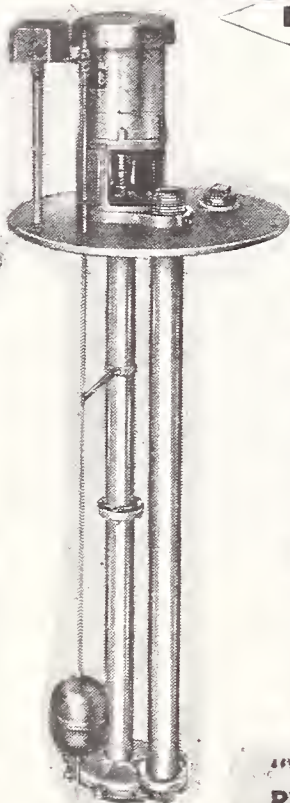
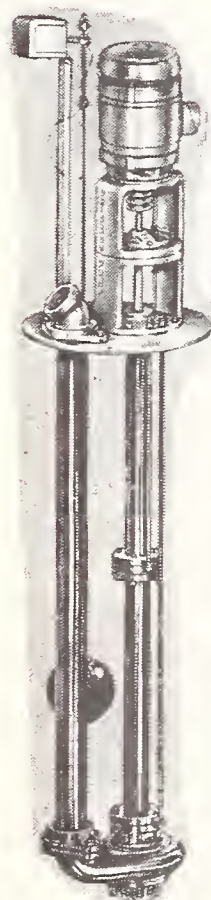
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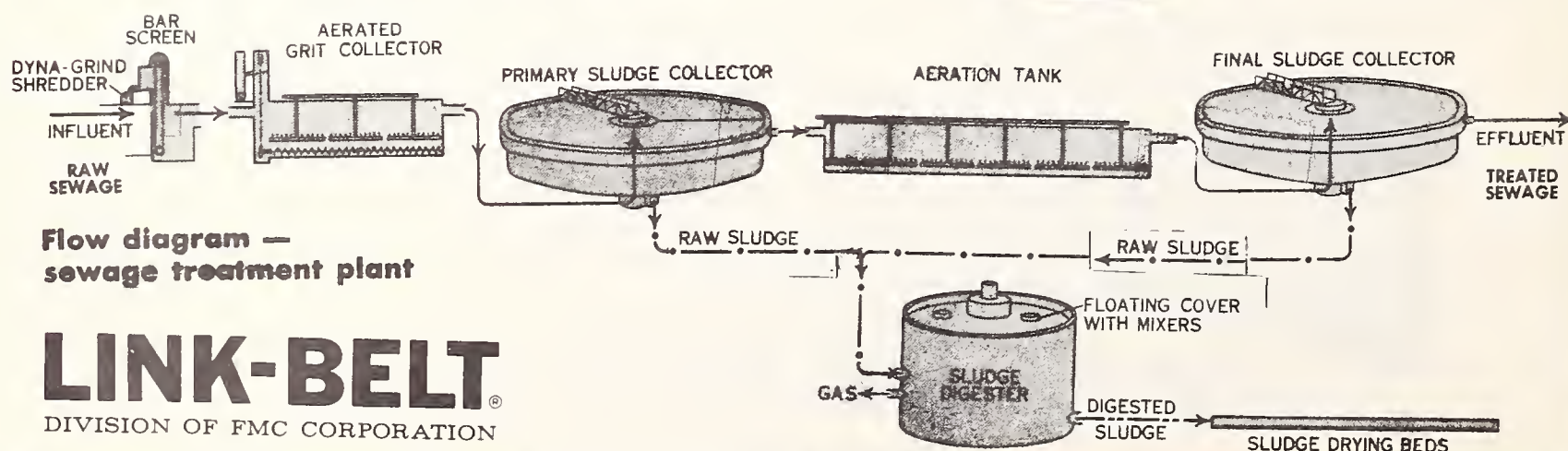
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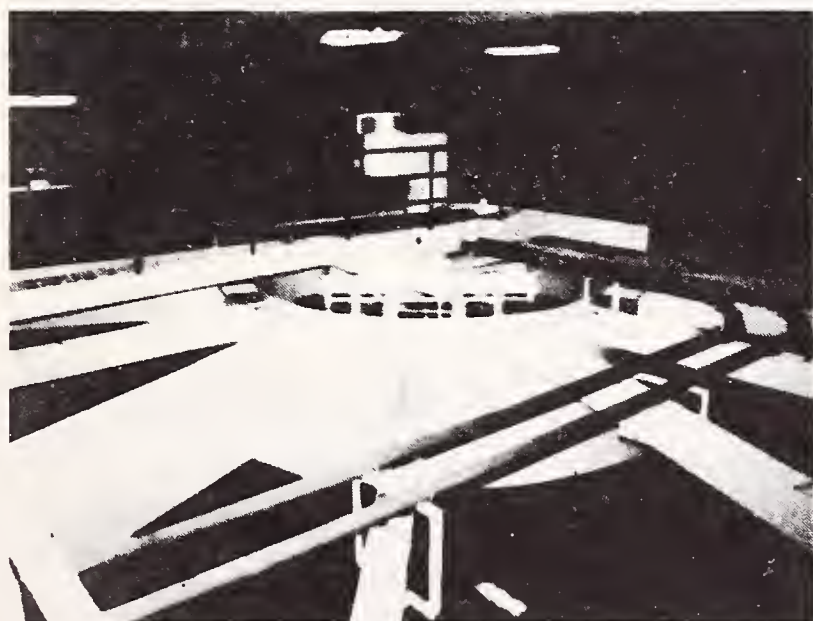


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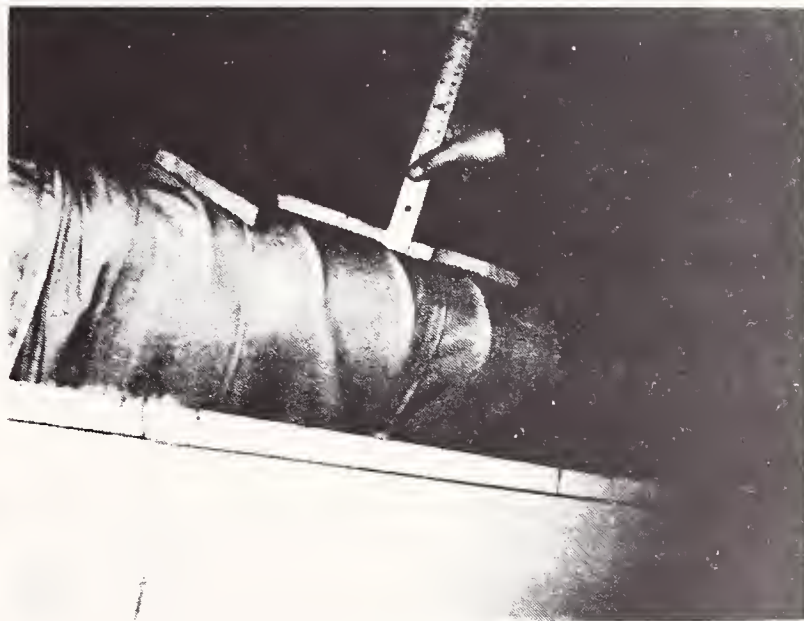
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Biologists for the Montana Fish & Game Dept. & the Anaconda Company weighing, measuring and tagging brown trout from the Clark Fork River near Warm Springs.

CLARK FORK RIVER

Last fall, the Montana Fish and Game Department conducted an electro-shock survey on the upper reaches of the Clark Fork River immediately below the Anaconda Company settling ponds at Warm Springs.

The results of fish census demonstrated that a healthy and stable population of german brown trout has returned to this section of the river that was essentially dead a few years ago from an accumulation of industrial and municipal wastes.

Anaconda has won national recognition for water pollution control at its Butte Operations, but the return of trout to the Clark Fork is the best and most gratifying evidence of the success of these programs.



FROM YOUR INTERNATIONAL DIRECTOR

By C. W. Brinck

When we meet in Great Falls next April we will welcome the immediate Past President of AWWA, Chester A. Ring, III and his lovely wife Joan. Mr. Ring's home is in Scotch Plains, New Jersey. He is senior vice-president for operations of the Elizabethtown Water Company. Mr. Ring is a licensed water supply and water treatment plant operator in New Jersey. He is a graduate civil engineer and is on many boards and organizations, including the National Drinking Water Advisory Council. Mr. Ring brings a wealth of information and knowledge with him. He will be in a position to answer questions in many areas of the water supply field, especially in the national arena where he has been in the spot light this past year.

The "Every Member Get A Member" (EMGM) membership recruitment has made much progress. Those serving on the membership committee are to be congratulated for their efforts. Mike Patterson, the present chairman, has done an outstanding job. When the EMGM campaign began, the Montana Section had 108 members, on April 1, 1977 we had 115 and according to the last count, this has now been increased to 135. We should make our quote of 150 members before 1981 if we keep up the effort.

Our association provides the means whereby the water suppliers, their operators, managers and designers can communicate both at the state and national levels. This is of special concern to all of us now that the Federal Drinking Water Act is something we must learn to live with.

The AWWA Research Foundation is seeking support from all of the Sections. They desire to make available a means for water utilities to join together in a cooperative research effort that most would be unable to afford alone. It also serves as an instrument to support professional researchers doing work on our behalf. Annual dues for a section wishing to join the Research Foundation are equal to \$1.00 per active member within the section when it joins. This would mean \$135.00 per year if Montana has 135 members. I recommend we discuss this further at Great Falls.

MWPCA NATIONAL DIRECTOR REPORT

1977 was the 50th year of the WPCF. Starting as a small group feeling the need for an exchange of technical information for the benefit of those engaged in wastewater treatment, the organization has grown to become the dominant organization in water pollution control. It has become international in scope with over 25,000 members and growing.

President Horace Smith passed the gavel of the Presidency to President-Elect Richard Englebrecht at the Board of Control meeting in Philadelphia on October 6, 1977. President Englebrecht emphasized the need for the Federation to establish working relationships with other organizations and environmental groups. He pointed out that the Federation should be receptive to new ideas and to changes that are taking place in the world of water pollution control. As examples of this changing role of the Federation he cited the work of the Technical Practice Committee which is developing a series of mini-manuals so that it will be possible to keep up with the rapid technical changes that are taking place in the industry. President Englebrecht urged an aggressive and active Federation. In keeping with this attitude, the Federation has released a 24 page "Green Book" outlining the Federation position on PL 92-500 and the proposed amendments to that law. The recommendations included in the green book commit the Federation on a series of proposed changes in the Act. The book is well worth your reading and copies are available from the Federation headquarters.

A matter of direct concern to the Montana Association as well as other smaller associations was considered at the Philadelphia Board meeting. A movement toward a one-man-one-vote voting arrangement on the Board of Control has been under consideration. Passage of this motion would have placed greater powers in the hands of the large associations. The motion was placed on the no-action list and so for the time being is dead.

Perhaps the most important item considered at the Board of Control meeting was the matter of the WPCF budget and WPCF financial affairs. The WPCF enjoys tax

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POPLAR SEWAGE TREATMENT PLANT NEARLY COMPLETED

The new 600,000 gpd oxidation ditch plant is nearly complete. When weather permits, hopefully in April, the basins will be filled, all mechanical equipment tested, and the unit will then be ready for operation. Until the present time, the sewage has been treated by facultative lagoons, but several years ago the city was ordered to improve its treatment facilities because the lagoons were quite inadequate. Increasing the lagoon area was not feasible due to the lack of adequate space. To meet the requirements of Public Law 92-500, the only acceptable solution was to construct a mechanical treatment plant. The oxidation ditch was chosen because of its high efficiency, low operational cost, and reliability. A recent survey by Region VIII of the U. S. Environmental Protection Agency showed that of all mechanical treatment plants, the oxidation ditch was first in reliability and efficiency of treatment. Removals of BOD usually exceed 90% and effluents with 20 mg/l BOD and 20 mg/l suspended solids are common. The original pre-treatment plans specified hand cleaned bar screens, but the bar screens had to be cleaned every day, so a Muffin Monster, the state's first, was purchased and is now being installed. This comminutor/mascerator is a powerful unit that grinds cans, rags, bottles, and even rugs into small pieces. Its planetary gears save it from damage if an ungrindable object stops it. It then backs up automatically to free itself of the object.

After passing the Muffin Monster, the raw sewage flows directly to the oxidation ditch, where the sewage is aerated, mixed, and kept flowing at a moderate velocity around the ditch by a 29 foot X 42 inch diameter rotor turning at 61 rpm. As an aerator, the rotor is surprisingly efficient and the only maintenance required is greasing the bearings. Residence time in the oxidation ditch is 24 hours. The effluent goes to a clarifier, then to a chlorine contact chamber, and is discharged to the Missouri River.

Another feature of the oxidation ditch is the small amount of sludge produced, which produces savings in sludge-handling equipment. Most of the sludge

from the clarifier is returned to the oxidation ditch. At intervals of 2 to 4 weeks, some of the sludge is transferred to an aerobic digester by an air lift pump. The digester concentrates the sludge by completing the oxidation of organics and by sedimentation. The sludge is then sent to drying beds and when dry, it is loaded by a front-end loader into trucks for hauling to a sanitary landfill.

The City Manager is Ralph Freedman, the Mayor is Jim Rowe and the commissioners are Jean Danielson, Bill Beck, Jack Demko and Millard Johnson. Howard Smith is presently in charge of the lagoons and he will operate the new facility.

By Robert L. Sanks
Senior Engineer
Christian, Spring, Sielbach & Associates

COMMITTEES continued from page 1

M. S. A. W. W. A. COMMITTEES

Community Relations and

Advancement Dick Nisbet
Constitution and By-Laws Roman Fargo
Safe Drinking Water Art Clarkson
Honors and Awards Wayne Young
Membership Mike Patterson

M. W. P. C. A. COMMITTEES

Awards Dave McCullough
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Membership Ken Johnston
Industrial Rod James

AD HOC COMMITTEE

Operator Scholarship Art Clarkson

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Eighteen individuals have booked themselves a winner! This achievement was accomplished by their choosing to join the rest of us in becoming members of the MSAWWA. WELCOME AND CONGRATULATIONS!

These are the stats: 18 new members, as of December 1, since April 1, 1977. If we can continue gaining new members at this rate, we will be well ahead of our 1981 goal of 150 members.

For the life of me I can't help but feel that everyone, even remotely, associated with the water business would want to be a member. Membership in AWWA is so rich in benefits. To me, help from your fellow compadre's is one of the greatest of these. Believe me, no matter what your problem is, someone, somewhere has experienced the same or something similar. Other benefits, but certainly not all, are the publications available to members. Among these are the Journal, a valuable source of technical and management information, Op-Flow, channeled toward operator needs, Operation Manuals, Standards, and of special interest to those who may not have the opportunity to participate in group insurance is the availability of such through AWWA membership, at greatly reduced rates.

Participation in the Montana Section activities is fun and profitable. Elsewhere in this issue is the schedule of events for our annual meeting in Great Falls, April 6th and 7th. Look it over, make a decision to come join us and mix it up in preparation for your upcoming busy season.

Once again, welcome to the new members of the Montana Section. The following have joined since January 1, 1977 - Harlan Carpenter, Billings; Dana Baham, Bozeman; John Cashell, Butte; Larry Cole, Billings; Appiah Amirtharajah, Bozeman; Douglas Craig, Livingston; Martha Dow, Havre; Robert Cottom, Dillon; David Haverfield, Lolo; City of Hardin, Kenneth Keeling; Gordon Nicholson, Bozeman; Charles O'Bert, Bozeman; Kathleen Miller, Havre; Rodger Reister, Ferrysburg; John Pickett, Billings; John Winter, Bozeman; Don Waterud, Glasgow; Jack Holland, Great Falls;

Continued on page 16

OPERATOR TRAINING COURSES

The Water Quality Bureau will hold operator training courses beginning the week of April 24, 1978. Classes will be held one evening per week for twelve weeks in Miles City, Glendive and Wolf Point. Classroom, as well as on-the-job training, will be stressed. The course is designed to update operators on new techniques as well as help operators upgrade or obtain certification.

Included will be water and wastewater treatment, operator math, bacteriology, hydraulics, chemistry and other subjects related to operation.

Exact times, dates, and places will be announced later.

REMEMBER -

CONFERENCE -

GREAT FALLS -

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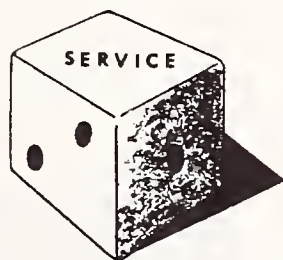
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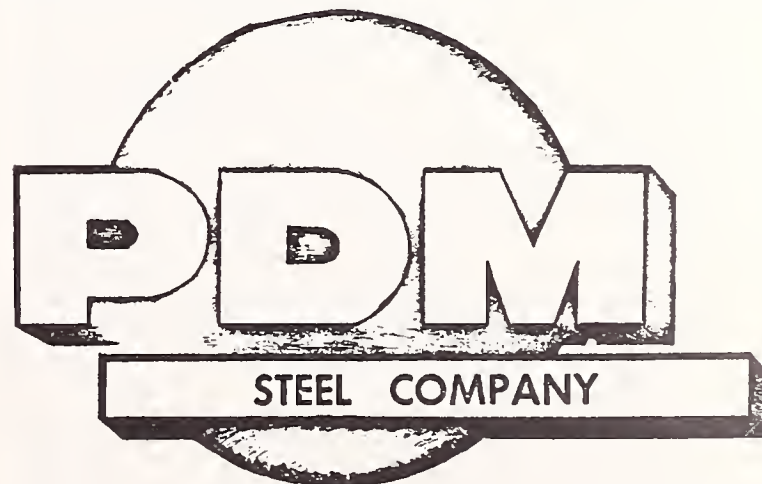
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MSAWWA MEMBERSHIP CONTEST

The Montana Section American Water Works Association is offering \$75.00 in prizes to encourage membership recruitment. The Grand Prize winner, who must be present to win, will be awarded fifty dollars. The next two winners, who do not have to be present to win, will receive \$15 and \$10 respectively. The drawing for this will be held at our annual meeting in Great Falls in April, 1978.

To get the contest started, the Montana Section will offer discounted prices for new memberships through April 6, 1978. Active -- \$5.00 discount--\$27.00; Affiliate -- \$2.50 discount--\$12.50; Student -- \$2.50 discount--\$10.00. Please make checks payable to AWWA, sending it and the application to Mike Patterson, 123 So. Dakota Street, Butte, Montana 59701. Mike will add the \$5 or \$2.50 and send it on to Denver.

The contest rules are as follows:

1. In order to be eligible to win, your name must appear as a Paid-Up member on the March 1, 1978 print-out in one of the following categories:

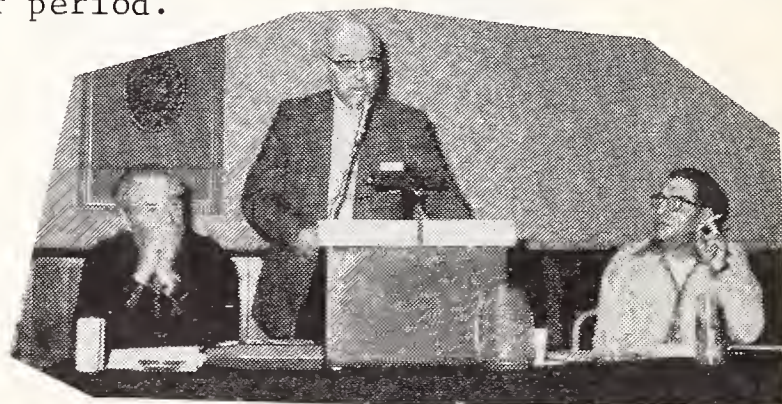
Active, Affiliate, Student, Retiree, Life, Honorary, or as the Officially designated Representative of any "Organizational" Membership.

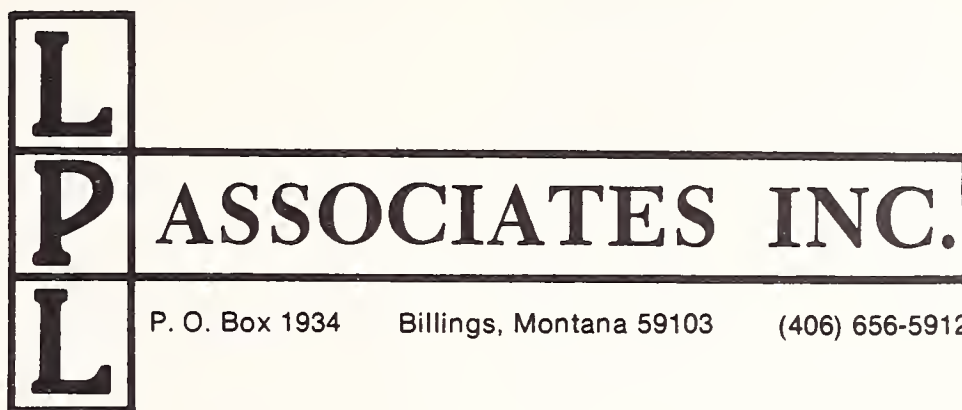
2. Your name will be entered in the contest one time for each "point" one "point" being the equivalent of \$15 in membership fees. In other words, if you sign up an "Affiliate" Member, it's worth one point. Fractions of points will not be considered i.e., an Active membership is worth 2 points.

3. Even though your name may be entered many times, only one prize can be awarded to any individual.
4. Reinstatement of delinquent members (within a year of being dropped from the AWWA roster) is not credited on the AWWA print-out as a new member and therefore, will not count for the contest.
5. Even though this contest announcement is beyond the starting date of the International AWWA 5-year membership drive, the contest rules shall be effective November 1, 1977 through April 6, 1978, (first day of the Annual Conference).
6. In addition to the drawing, the top membership recruiter in the state will receive an award (based on total points).

REMEMBER...EMGM...EVERY MEMBER GET A MEMBER!!!!!!!!!!!!

In addition to the above, AWWA gives recruitment awards. A medallion key ring when a member signs up his first new member. A handsome centennial emblem tie tac is sent when the fifth new member is recruited. A special certificate goes to 10-member recruiters confirming their membership in the Centennial Club. Of course the prestigious Diamond Pin Award is still made for recruiting 25 members in a two year period.





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and postal advantages due to its IRS classification as a 501(c)(3) non-profit educational and technical organization. Without this status, additional mailing and tax expenses would amount to about a quarter million dollars annually (\$10 per member). This classification is now in jeopardy.

To retain the 501(c)(3) classification, the WPCF must be able to show that 30% or more of its income is derived from membership dues. Unfortunately over the past few years income has been increasing in the areas of conference registration and exhibit space and in Journal advertising without a corresponding increase in membership income. Dues income has now fallen to 24.5% and the IRS has cast serious warnings that the 501(c)(3) classification may be disallowed. Although the Federation is not in financial trouble (unless it loses such tax and postal position), the 1978 budget would show a loss unless additional income were derived. The only course of action that appeared feasible under these conditions was to ask for additional membership dues. The activities and expense budget of the Federation are scrutinized in detail by the Executive Committee and it was recommended by them that a 25% increase in dues be initiated. Based upon a prediction of 8% membership increase the 1978 budget can be balanced with a modest addition to reserves. The 8% increase in membership appears optimistic to me as the membership campaign during the past year netted 7.5%. As you probably noticed when you received your dues billing recently, the Board of Control approved the dues increase.

The Montana Association will be host to the 1978 Regional Meeting. The Regional Meeting will be held at the Village Inn in Missoula on March 10-11, 1978. Officials of the WPCF will be present to meet with officers of the Pacific Northwest WPCA (the states of Washington, Oregon and Idaho), the British Columbia WPCA, Alaska WPCA, and the Montana WPCA. It is possible that North Dakota and South Dakota may also attend. The Regional Meeting is a rather informal but very informative meeting. Here is an opportunity to make direct input of your feelings and questions about the Federation and to exchange information with other area associations.

All officers and trustees of the Montana Association are urged to be present and other members are also certainly welcome.

It has been a great pleasure to begin this term as your National Director. With the retirement of John Spindler we have lost the seat on the Executive Committee and an energetic representative of our association on the Board of Control. It will be extremely difficult to fill the shoes of such a fine director. I am anxious to have your thoughts and problems concerning our relationship with the WPCF; in fact, I plead for them so that I may properly express our position on matters that concern the Montana Water Pollution Control Association.

FROM YOUR INTERNATIONAL DIRECTOR
continued from page 9

The opportunity to serve as your International Director the past three years is appreciated. Mr. Miles Tuttle will replace me at the Atlantic City meeting. He will serve you well. Please give him your support so that he can represent you on this Board.

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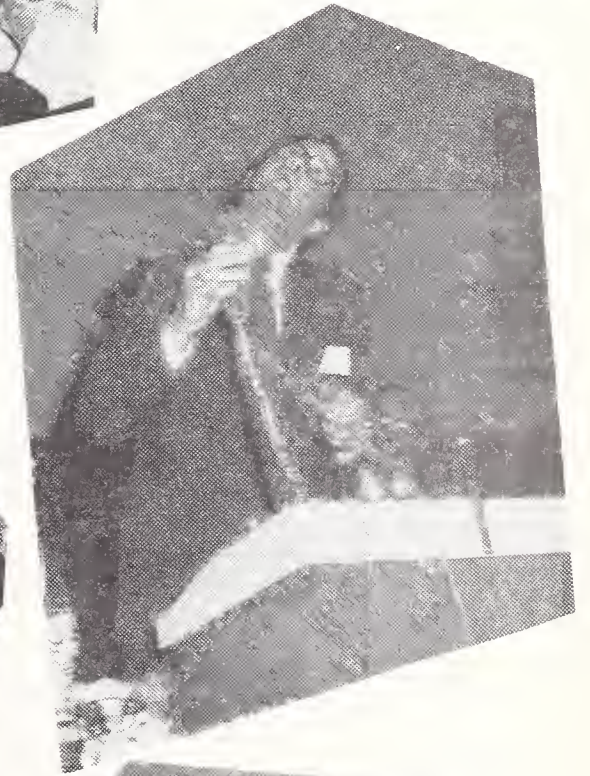
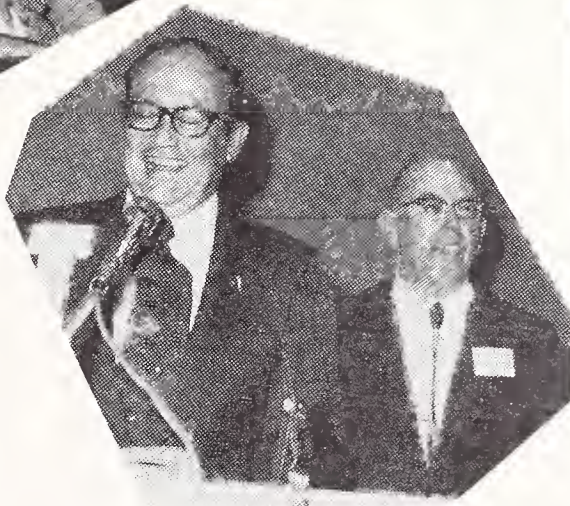
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NOTES: Registration fee for non-members will be \$5.00 higher, which may
be applied to 1st years membership fee in either AWWA (\$32.50)
or WPCF (\$27.00).

Those registering prior to March 10th will be eligible for cash
and merchandise drawing to be held throughout the Conference.

R E C E I P T

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Representing:

For full registration _____ Other _____

Amount: \$ _____

L. F. Garske - AWWA/WPCF

By:

(Receipt will be in your packet at the Heritage Inn)

WATER AND WASTEWATER EXAMINATION RESULTS ANNOUNCED

LeRoy Lucker, Great Falls, Chairman, and Don Willems, Helena, Director, Water and Wastewater Operators Certification Board, announced the certification of 44 persons as water and wastewater treatment plant operators. Those passing the examination which was given in Bozeman, Missoula, Havre and Miles City are:

Class 1: Leonard Colvin, Anaconda Company, Butte; Walt Kelly, Anaconda Company, Butte; Bob Cope, Colstrip; Wade Weakley, Denver, CO; Gary L. Holcomb, City of Great Falls; Ralph P. Party, City of Great Falls; Gary G. Wyman, City of Great Falls; Kenneth K. Keeling, City of Hardin; Dennis L. Koller, City of Havre; Kathy Miller, Havre; Michael Sennett, City of Helena; Ron Hildebrand, Laurel; Randall J. Geiger, Libby; Frank Cory, City of Miles City; Dennis L. Falk, Montana Power Company, Missoula; James R. McElligott, Montana Power Company, Missoula; Gregory L. Acton, City of Whitefish; Stephen Ruhd, City of Wolf Point.

Class 2: Milton Gilmer, Boulder; Jim Coffman, Sr., City of Chester; Charlene A.

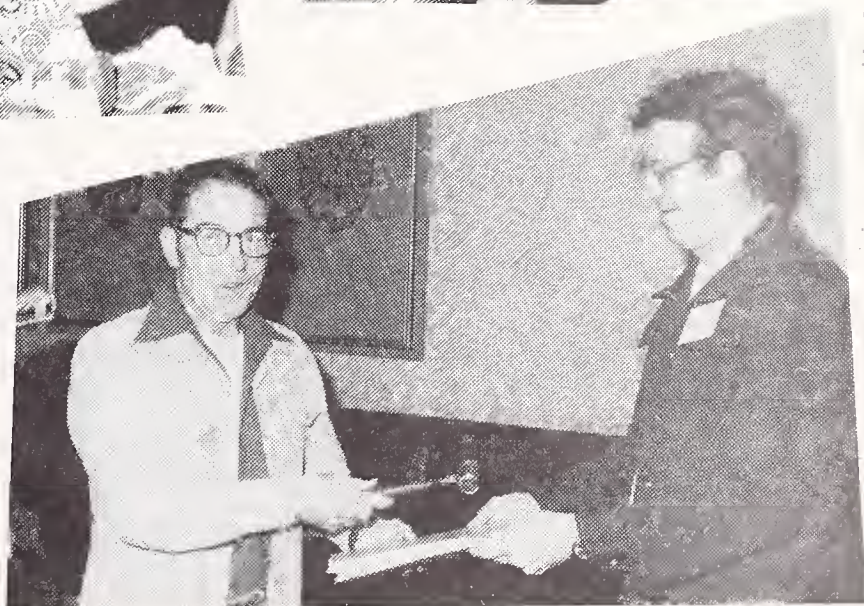
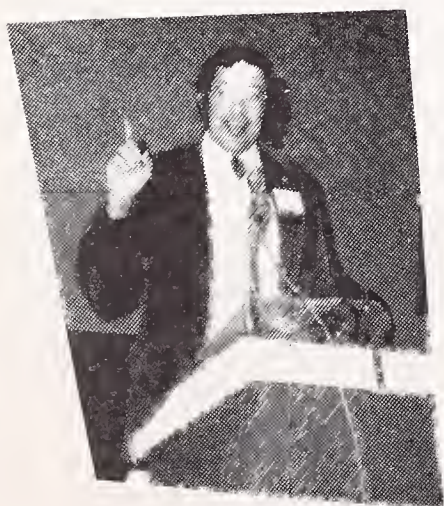
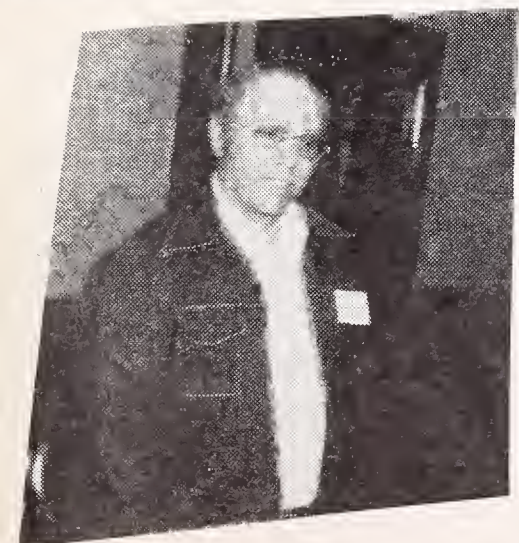
Teitzel, Chinook; Joel Rouns, Conrad; Brian Ertman, City of Forsyth; Kristi J. Haugen, Havre; Robert Sherdahl, City of Livingston.

Class 3: John F. Wilbur, Ashland; Earl J. Armstrong, City of Choteau; Pat Becker, Conrad; Maurice Adams, Fort Belknap Agency, Harlem; Bruce Shepherd, Livingston; Stuart Cooper, City of Manhattan; David A. Adams, City of Superior; Michael S. O'Mary, City of Whitefish; Jim W. Bacon, City of Wibaux.

Class 4: Otto Freier, Box Elder; Charlene A. Teitzel, Chinook; Kristi J. Haugen, Havre; Francis Werk, Fort Belknap Agency, Harlem; Milton E. Benge, Miles City; Dennis Wolff, Miles City; Gwyn H. Watkins, Missoula; James A. VanSickle, Worden.

Class 5: William Schultz, Belgrade; Donald Horn, Gallatin Gateway; Jim Grenz, Miles City; David C. Nation, Miles City.

The next examination is scheduled for Wednesday, April 5, 1978, at the Heritage Inn in Great Falls. Anyone interested in taking the examination should contact the Water and Wastewater Operators Board, Department of Health and Environmental Sciences, Helena.



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